ABSTRACT

The present invention concerns an apparatus for purifying contaminated water by photochemical oxidation, wherein at least a sub-flow of water is directed through a flow channel wherein the water is irradiated with UV electromagnetic radiation from at least one UV lamp assembly, wherein said at least one UV lamp assembly includes a high-pressure UV halogen lamp which is mounted generally parallel with the flow direction in the channel. Moreover, a method is also provided, whereby the water flow is radiated with UV radiation by at least on UV halogen high-pressure lamp assembly, which is energy intensive wave lengths in the range of 150 nm to 260 nm, preferably in the range of 160 nm to 220 nm, and most preferably in the range of 192 nm to 205 nm.